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ABSTRACT

The magnitude of the effect television has on young people's lives makes it an important source of drug abuse information, but there is a question as to whether or not such information is persuasive. Some studies indicate that viewer response to anti-drug television commercials falls into four judgmental dimensions: relevant persuasion, negative evaluation, creative stimulation, and the degree of "hard sell." Exploratory study at the University of Connecticut analyzed 114 students' responses to five commercials with different types of persuasive appeals. The findings of the study were inconclusive. For example, one commercial considered as "hard sell" (threatening or emotional) was perceived as low in persuasive and creative qualities and high in negative reactions, whereas another commercial of the "hard sell" nature was considered persuasive and effective. Results of this study indicate possibilities for future research on persuasive strategies and the effectiveness of statistical measurements to evaluate the effectiveness of these strategies. (RN)

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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ASSESSING THE PERSUASIVENESS OF DRUG ABUSE INFORMATION

by

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DRUG ABUSE INFORMATION RESEARCH PROJECT

DAIR Report #6

OS 500 431

This report is one of a series of descriptive and predictive studies into the cognitive, affective and behavioral responses to drug abuse information. Project DAIR (Drug Abuse Information Research), proposes to define dimensions of information seeking and utilization that relate to drug abuse. Investigations in this series develop and implement the instrumentation for a methodology which includes surveys, experimental manipulations, field experiments and modeling. One goal of the series is the development of a stochastic behavioral model which allows the prediction of drug use behavior consequent to specified exposure from drug abuse information.

Computer time for statistical analyses was provided through the Facilities of the University of Connecticut Computer Center and supported by National Science Foundation Grant GJ-9 to the Computer Center.

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Various strategies have been employed in an attempt to cope with the current problem of illicit drug usage. The present study investigates the set of strategies presently being employed in television public service drug abuse advertising. The rationale for this choice is the extensive use of this medium by all Americans, but especially for those up to 16 years of age, for whom television occupies almost as much time as school (Baker and Ball, 1969).

In a recent review of mass communication literature by Weiss (1971), the author cites evidence which suggests peak television usage occurs at 11-12 years of schooling. Consistent with this is the recent trend of research evidence which establishes television as the medium of highest credibility (e.g., Greenberg, 1968). In addition, Fejer et al. (1971) have reported that "mass media" are most often mentioned as sources of information about drugs by high school students in Canada.

It thus seems evident that television plays a large role in the lives of most young people in the United States. This finding takes on particular importance when dealing with the area of drug abuse information, since it is at these early years when most individuals are at present being confronted with societal and peer group values regarding drug usage (Richards and Langer, 1971), and it is at this age when actual usage decisions are being made for the first time. The evidence that television plays a substantial role in young people's lives, both in terms of media use and media believability, would thus seem to provide at least the <u>potential</u> for observable message generated effects. Evidence suggests that the media operate as a source of information about drug abuse (Hanneman, 1972), thus fulfilling to some extent the awareness or "knowledge" function discussed by innovation adoption theorists (e.g., Rogers and Shoemaker, 1971). The question then arises as to the degree to which the media fulfill the <u>persuasion</u> function which also is discussed as a major component of change. The present study addresses the area of affective response to televised drug related communications.

An examination of the research literature reveals no studies specifically aimed at assessing the persuasiveness of drug abuse messages, no matter what media channel is employed. A variety of studies have addressed the more general topic of marketing/advertising messages (e.g., Leavitt, 1970; Wells, 1964; Mindak, 1956) but the immediate applicability of both techniques and findings to the specific area of public service advertising may be questionable. Recently, McEwen (1972) has reported the development of a perceptual inventory to examine receiver responses to drug abuse commercials. The author reported that four component dimensions of response appear to underlie viewer judgments: Relevant Persuasion (educational; believable; meaningful); Negative Evaluation (overdone; dull; boring); Creative Stimulation (novel; creative; original); Hard Sell (threatening; emotional; thought provoking). This study represents an initial effort to apply this perceptual inventory to the examination of the affective consequences of exposure to drug abuse advertising.

Methods

As described in an earlier study (McEwen, 1972), a self-administered questionnaire consisting of 82 descriptor terms accompanied by five-interval rating scales (from "applies extremely well" to "does not apply at all") and was presented to respondents. Higher scores indicate greater perceived applicability of the descriptor terms.

Subjects. Subjects for the study were 114 students from five introductory communication courses at the University of Connecticut. Intact classes were employed (ranging in size from 17 to 27).

Materials. Five current color drug commericals* ranging from 30 to 60 seconds in length were shown on a 16 mm sound projector in a classroom setting. Films had been judgmentally selected so as to represent a range of types of appeals

*All films were obtained from the National Clearinghouse for Drug Abuse Information and are fully described by McEwen (1972). Scenarios are included as Appendix A.

representative of those currently being employed.

Procedures. At the beginning of the scheduled class, the E was introduced by the respective class instructors and Ss were told that, as part of a current research inquiry into drug related communication, they would be asked to view a short film clip and respond to it. Ss were handed questionnaires after viewing the film and the anonymity of the data was stressed. After completion of the questionnaire, the general nature of the study was explained and questions were answered.

Although each student responded to one of the five films via 82 scales, only 22 of these scales were retained for the present analyses. Each of the four dimensions of viewer response was represented by five scales which loaded highly (above .50) and purely (less than .40 on any other factor) on the dimension. The actual range of loadings on a single factor was from .54 to .84. Two additional scales were included despite some lack of purity because of their potential theoretic utility ("persuasive" and "effective"). All items and loadings comprising the dependent measures may be found in Appendix B.

Results

Analysis of variance tests were applied to all dependent measures. Results indicated that overall significant differences ($p < .05$) were obtained only with respect to the Hard Sell dimension of response. Results for the Creative Stimulation and Negative Evaluation factors approached significance, however ($p < .10$). Table 1 reports the results of these analyses.

Since individual commerical comparisons had been an a priori component of the experimental design in this study, selected comparison tests were also applied to the data (Winer, 1971). The results are listed in Table 2. An examination of the selected comparisons tests indicates certain consistencies. Commercial #4 ("Bad Trip") is perceived as low in Relevant Persuasion and Creative Stimulation, but high in Hard Sell and Negative Evaluation. This, however, does not reflect an evaluation of the film as being low in Persuasiveness. Commerical #1 ("LSD Wonder Drug") is

rated as being high in Persuasiveness and Effectiveness as well as being relatively high in Creative Stimulation and low in Negative Evaluation. Results from this latter analysis indicated that significant differences ($p < .05$) were obtained with respect to each of the indices and factors employed.

Of somewhat greater interest with respect to the present investigation are the estimates of reliability (Winer, 1971) that such data provide. Table 3 reports the reliability indices estimated from analysis of variance data. Such indices are primarily a function of the sensitivity of an instrument (i.e., ability to detect differences) and hence generally parallel analysis of variance findings in indicating highest reliability (.87) for the Hard Sell measure. All estimated reliability coefficients are above .35. The reported reliability estimates probably underestimate the extent of measure stability (indicable via test-retest measures) since each of the four major dimensions represents a summation of five separate perceptual scales, thus in general assuring a more stable instrument.

Discussion

Conclusions drawn from an essentially exploratory study must, of course, be somewhat tenuous. The possibility of biasing factors systematically affecting group scores is significant and hence the data cannot be taken to conclusively indicate a greater superiority for the sorts of appeals employed in commericals #1 and #2 over the types of "fear" tactics employed by commercial #4. The data does suggest, however, that perceptions of "Hard Sell" need not imply concurrent perceptions of "Negative Evaluation" (a comparison of commericals #4 and #5 on these two dimensions substantiates this) and that perceived effectiveness does not necessarily imply perceived relevance (a comparison of commericals #1 and #4 illustrates this). This then provides additional data implying the psychological, as well as theoretical, independence of the proposed dimensions of response. Obtained responses serve to indicate the apparent independence of the factors.

Furthermore, estimates of reliability, while not exceedingly high in most instances, reflect an instrument which may prove reliably sensitive to differences in persuasive appeal. The present study is obviously not a sufficient test of measure reliability, but additional tests of stability, sensitivity and internal consistency would seem, on the basis of the present findings, to offer promise.

Additional tests should further establish the sensitivity of the proposed instrument to differences in persuasive strategy. The range of strategies examined should be expanded, hence providing further information with regard to both the utility of the measuring instrument and the typologies of commerical stimuli available.

Finally, indices regarding the validity of the proposed factors are necessary. Having established the sensitivity and reliability of the instrument and the apparent independence of its component dimensions, the task remains to establish the psychological reality of the factors. Certain research avenues offer promise in this area. Commercial stimuli found to differ in perceived stimulation/novelty value might be examined via physiological measures capable of determining respondent arousal rate. Correlational measures (e.g., multiple correlation) would thus provide information regarding the correspondence of psychological and physiological data. Also, the responses of drug users and nonusers might be compared with regard to certain of the dimensions (e.g., Relevant Persuasion) as a form of extreme groups discriminability check on measure validity. Such research is, of course, necessary before any extensive research inquiry is warranted.

TABLE 1

Analysis of Variance Results

Dependent Measure	Mean Square	F
"Persuasive"		
Between Commercials	2.304	1.98
Residual	1.165	
"Effective"		
Between Commercials	2.211	1.94
Residual	1.140	
"Relevant Persuasion"		
Between Commercials	28.490	1.55
Residual	18.422	
"Negative Evaluation"		
Between Commercials	33.938	2.07 *
Residual	16.411	
"Creative Stimulation"		
Between Commercials	45.886	2.42 *
Residual	18.956	
"Hard Sell"		
Between Commercials	114.066	7.84 **
Residual	14.550	

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* $p < .10$

** $p < .05$

TABLE 2

Selected Comparisons Results

DEPENDENT MEASURE	COMMERCIAL STIMULUS #1	#2	#3	#4	#5
"Persuasive"	3.70_{ab}	3.31_{bc}	3.09_{c}	3.47_{bc}	2.90_{c}
"Effective"	3.59_{a}	2.92_{b}	2.87_{b}	3.29_{ab}	3.10_{ab}
"Relevant Persuasion"*	17.56_{a}	18.08_{a}	17.83_{a}	15.00_{b}	17.19_{a}
"Negative Evaluation"*	8.85_{a}	10.19_{ab}	9.61_{a}	11.94_{b}	8.62_{a}
"Creative Stimulation"*	12.41_{a}	11.50_{ab}	9.65_{b}	10.76_{ab}	13.38_{a}
"Hard Sell"	14.85_{a}	11.54_{b}	11.00_{b}	15.88_{a}	15.29_{a}

*Mean scores represent sums of scores for five scales representing each dimension.

All comparisons within the same dependent measure which do not share a similar subscript are significantly different ($p < .05$)

Commercial stimulus key:

#1: "LSD Wonder Drug"

#2: "Bill Cosby Talks About Speed"

#3: "The Truth About Marijuana"

#4: "Bad Trip"

#5: "Neighborhood Junkie"

TABLE 3

Reliability Estimates

Dependent Measure	Analysis of Variance Reliability Estimate
"Persuasive"	.494
"Effective"	.483
"Relevant Persuasion"	.353
"Negative Evaluation"	.516
"Creative Stimulation"	.587
"Hard Sell"	.872

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APPENDIX A

Stimulus Materials Employed:

AD #1 — LSD, THE WONDER DRUG (60 sec.)

Camera slowly zooms in on Serling as he describes the unpredictable effects of LSD. Talks about immediate offects (what you feel, how long a trip) and long-range effects (on future generations). Tone of ad is that science knows so little about exactly what the drug can do, "...yet, some people will swallow anything." NIMH-NCDI tag.

AD #2 — BILL COSBY: SPEED KILLS (30 sec.)

Cosby VO on animated and still scenes of Cosby and kids. TAlks about an expression that the "kids in L.A." have—speed kills. Explains that they are not talking about safe driving, but about amphetamines. Some people might be taking them and not realize it. "Why guess about speed, when you can have the facts?" NIMH-NCDI tag.

AD #3 — THE TRUTH ABOUT MARIJUANA (60 sec.)

Serling and multiple voices over scene of someone rolling a joint. "Why doesn't somebody tell the truth about marijuana?" Voices make a number of statements about marijuana. "Today, not one of these facts is true." Stresses facts that are true — possession is a felony and the consequences of being convicted of a felony. Says that with marijuana some things "can go up in smoke. And that <u>is</u> a fact." NIMH-NCDI tag.

AD #4 — BAD TRIP (60 sec.)

Serling and youth's VO scenes of someone having a bad trip. Person stands in front of window, lies and rolls on bed, contorts face and hands. Serling explains possible aftereffects of LSD (uncontrollable, unpredictable recurrences). NIMH-NCDI tag.

AD #5 — NEIGHBORHOOD JUNKIE (30 sec.)

Serling VO on scene of woman leaving house, getting into car with daughter, backing out of driveway and driving down street. Serling says she's a junkie, but she'd be surprised if you called her that. She takes amphetamines to get going in the morning, barbiturates to go to sleep, all without the supervision of a doctor. "How about you? Any junkies live in your house?" NIMH-NCDI tag.

APPENDIX B

Descriptor Items Comprising Dependent Measure Dimensions:

Dimension	Item Loading
"Relevant Persuasion"	
Makes Sense	.845
Honest	.747
Educational	.673
Believable	.657
Factual	.649
"Negative Evaluation"	
Worn Out	.736
Overdone	.709
Worthless	.635
Aggravating	.619
Dull	.618
"Creative Stimulation"	
Different	.750
Unique	.722
Original	.714
Creative	.684
Novel	.531
"Hard Sell"	
Scary	.689
Threatening	.619
Disturbing	.589
Emotional	.582
Thought Provoking	.537